

Yakima Valley Dairies
SDWA-10-2013-0080

Residential Well Sampling

Data Usability Summary Report
Sample Delivery Group SWE0197, SWE0206,
and SWE0207

June 6, 2013



A handwritten signature in black ink that reads "Amy Goldberg Day".

Amy Goldberg Day
Project Chemist

A handwritten signature in purple ink that appears to read "Steve Hicks".

Steve Hicks, PE
Quality Manager

A handwritten signature in blue ink that reads "Kevin M. Freeman".

Kevin M. Freeman, PG
Project Coordinator

**Data Usability Summary Report
Sample Delivery Group
SWE0197, SWE0206, and
SWE0207**

Residential Well Sampling
Yakima Valley Dairies
SDWA-10-2013-0080

Prepared for:
Yakima Valley Dairies

Prepared by:
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Summary

This Data Usability Summary Report summarizes the review of Sample Delivery Group numbers SWE0197, SWE0206, and SWE0207 for samples collected under the Yakima Valley Dairies Residential Well Sampling Quality Assurance Project Plan (QAPP). This assessment of data validation and usability was performed per the guidance and requirements established under Section 4 of the QAPP.

Samples in Delivery Group numbers SWE0197, SWE0206, and SWE0207 were collected from residential wells per the QAPP during the period May 29 to May 30, 2013. This review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with nitrate were reviewed for this validation. Field documentation was not included in this review.

Analytical Data Package Documentation

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable	
	No	Yes	No	Yes
1. Sample receipt condition		X		X
2. Requested analyses and sample results		X		X
3. Master tracking list		X		X
4. Methods of analysis		X		X
5. Reporting Limits		X		X
6. Sample collection date		X		X
7. Laboratory sample received date		X		X
8. Sample preservation verification (as applicable)		X		X
9. Sample preparation/extraction/analysis dates		X		X
10. Fully executed chain of custody form		X		X
11. Narrative summary of quality assurance (QA) or sample problems provided		X		X
12. Data package completeness and compliance		X		X

Laboratory Analysis

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 300.0 (USEPA 2010). Data were reviewed in accordance with USEPA National Functional Guidelines (USEPA 2005).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines (USEPA 2005):

- **Concentration (C) Qualifiers**
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank. Its presence in the sample may be suspect.
- **Quantitation (Q) Qualifiers**
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- **Validation Qualifiers**
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB The compound is considered non-detect at the listed value due to associated blank contamination.

- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Nitrate

Holding Times

The specified holding time for nitrate (as nitrogen) analyzed by Method SW-846 300 is presented in the following table.

Method	Matrix	Holding Time	Preservation
Nitrate as Nitrogen SW-846 300.0	Water	48 hours	Cool to 4±2 °C

The samples were prepared and analyzed within the specified holding time criteria.

Blank Contamination

QA blanks (i.e., laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Nitrate associated with the QA blanks exhibited a concentration less than the MDL. No data were qualified based on blank contamination.

Matrix Spike/Matrix Spike Duplicate Samples

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the (optional) MS/MSD analysis must exhibit recoveries within the method-specified acceptance limits of 80 to 120 percent. The relative percent difference (RPD) between the MS and MSD results should be within the laboratory-established acceptance limits of zero to 12.1 percent.

The MS/MSD results were compliant and no data were qualified based on MS/MSD recovery.

Laboratory Control Sample/Ongoing Precision and Recovery Analysis

The LCS/OPR analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/OPR analysis must exhibit recoveries within the method-specified acceptance limits.

All compounds associated with the LCS/OPR analyses exhibited recoveries within the control limits. The LCS/OPR results were compliant and no data were qualified based on LCS/OPR recovery.

Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method.

Field duplicate samples were not collected as part of this dataset.

System Performance and Overall Assessment

Overall system performance was acceptable. The reporting limits met the data quality objects. The overall data quality is within the guidelines specified in the method. No data were qualified based on the findings of the data validation.



Data Validation Checklist for Nitrate

Nitrate (as Nitrogen): SW-846 300.0	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GC/MS					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
Laboratory Control Sample (LCS) Accuracy %R		X		X	
LCS Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
MS %R		X		X	
MSD %R		X		X	
MS/MSD RPD		X		X	
Field/Laboratory Duplicate Sample RPD					X
Dilution Factor		X		X	
Moisture Content					X

Note: %R Percent recovery



Appendix A

TestAmerica Labs
Analytical Report SWE0197

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane

11922 East 1st. Avenue

Spokane, WA 99206

Tel: (509)924-9200

TestAmerica Job ID: SWE0197

Client Project/Site: [none]

Client Project Description: Yakima Dairies

For:

ARCADIS U.S., Inc. - Liberty Lake

695 N. Legacy Ridge Drive, Suite 200

Liberty Lake, WA 99019

Attn: Tom Mullen



Authorized for release by:

6/4/2013 1:50:17 PM

Randee Decker, Project Manager

Randee.Decker@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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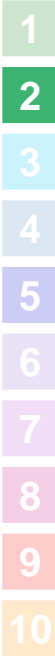


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Sample Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWE0197-01	RW-1030	Water	05/28/13 14:35	05/30/13 08:00
SWE0197-02	RW-3030	Water	05/28/13 14:20	05/30/13 08:00
SWE0197-03	RW-1044	Water	05/28/13 15:25	05/30/13 08:00
SWE0197-04	RW-1045	Water	05/28/13 15:47	05/30/13 08:00
SWE0197-05	RW-1125	Water	05/28/13 16:05	05/30/13 08:00
SWE0197-06	RW-1046	Water	05/28/13 16:20	05/30/13 08:00
SWE0197-07	RW-1047	Water	05/28/13 16:40	05/30/13 08:00
SWE0197-08	RW-1049	Water	05/28/13 17:00	05/30/13 08:00
SWE0197-09	RW-1051	Water	05/28/13 17:25	05/30/13 08:00
SWE0197-10	RW-1054	Water	05/28/13 17:40	05/30/13 08:00
SWE0197-11	RW-1085	Water	05/29/13 08:15	05/30/13 08:00
SWE0197-12	RW-3085	Water	05/29/13 08:00	05/30/13 08:00
SWE0197-13	RW-1093	Water	05/29/13 08:57	05/30/13 08:00
SWE0197-14	RW-2093	Water	05/29/13 09:00	05/30/13 08:00
SWE0197-15	RW-1094	Water	05/29/13 09:18	05/30/13 08:00
SWE0197-16	RW-1095	Water	05/29/13 09:30	05/30/13 08:00
SWE0197-17	RW-1096	Water	05/29/13 09:45	05/30/13 08:00
SWE0197-18	RW-1158	Water	05/29/13 10:08	05/30/13 08:00
SWE0197-19	RW-1100	Water	05/29/13 10:55	05/30/13 08:00
SWE0197-20	RW-2100	Water	05/29/13 10:57	05/30/13 08:00
SWE0197-21	RW-1103	Water	05/29/13 11:10	05/30/13 08:00
SWE0197-22	RW-1099	Water	05/29/13 11:20	05/30/13 08:00
SWE0197-23	RW-1149	Water	05/29/13 11:50	05/30/13 08:00
SWE0197-24	RW-1107	Water	05/29/13 12:25	05/30/13 08:00
SWE0197-25	RW-2107	Water	05/29/13 12:30	05/30/13 08:00

TestAmerica Spokane

Definitions/Glossary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1030

Lab Sample ID: SWE0197-01

Date Collected: 05/28/13 14:35

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	7.59		0.200		mg/l		05/30/13 08:13	05/30/13 08:39	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-3030

Lab Sample ID: SWE0197-02

Date Collected: 05/28/13 14:20

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 08:13	05/30/13 08:58	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1044

Lab Sample ID: SWE0197-03

Date Collected: 05/28/13 15:25

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	8.19		0.200		mg/l		05/30/13 08:13	05/30/13 09:16	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1045

Lab Sample ID: SWE0197-04

Date Collected: 05/28/13 15:47

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	15.3		0.200		mg/l		05/30/13 08:13	05/30/13 09:35	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1125

Lab Sample ID: SWE0197-05

Date Collected: 05/28/13 16:05

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.5		0.200		mg/l		05/30/13 08:13	05/30/13 09:54	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1046

Lab Sample ID: SWE0197-06

Date Collected: 05/28/13 16:20

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	9.98		0.200		mg/l		05/30/13 08:13	05/30/13 10:13	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1047

Lab Sample ID: SWE0197-07

Date Collected: 05/28/13 16:40

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.2		0.200		mg/l		05/30/13 08:13	05/30/13 10:31	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1049

Lab Sample ID: SWE0197-08

Date Collected: 05/28/13 17:00

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	9.36		0.200		mg/l		05/30/13 08:13	05/30/13 10:50	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1051

Lab Sample ID: SWE0197-09

Date Collected: 05/28/13 17:25

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	17.1		0.200		mg/l		05/30/13 08:13	05/30/13 11:09	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1054

Lab Sample ID: SWE0197-10

Date Collected: 05/28/13 17:40

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.2		0.200		mg/l		05/30/13 08:13	05/30/13 11:27	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1085

Lab Sample ID: SWE0197-11

Date Collected: 05/29/13 08:15

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	8.00		0.200		mg/l		05/30/13 08:13	05/30/13 12:42	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-3085

Lab Sample ID: SWE0197-12

Date Collected: 05/29/13 08:00

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 08:13	05/30/13 13:00	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1093

Lab Sample ID: SWE0197-13

Date Collected: 05/29/13 08:57

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	7.87		0.200		mg/l		05/30/13 08:13	05/30/13 13:19	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-2093

Lab Sample ID: SWE0197-14

Date Collected: 05/29/13 09:00

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	7.84		0.200		mg/l		05/30/13 08:13	05/30/13 13:38	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1094

Lab Sample ID: SWE0197-15

Date Collected: 05/29/13 09:18

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	4.59		0.200		mg/l		05/30/13 08:13	05/30/13 13:56	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1095

Lab Sample ID: SWE0197-16

Date Collected: 05/29/13 09:30

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	11.8		0.200		mg/l		05/30/13 08:13	05/30/13 14:15	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1096

Lab Sample ID: SWE0197-17

Date Collected: 05/29/13 09:45

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	16.0		0.200		mg/l		05/30/13 08:13	05/30/13 14:34	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1158

Lab Sample ID: SWE0197-18

Date Collected: 05/29/13 10:08

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	29.4		2.00		mg/l		05/30/13 08:13	05/30/13 15:48	10.0

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1100

Lab Sample ID: SWE0197-19

Date Collected: 05/29/13 10:55

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.9		0.200		mg/l		05/30/13 08:13	05/30/13 15:11	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-2100

Lab Sample ID: SWE0197-20

Date Collected: 05/29/13 10:57

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.9		0.200		mg/l		05/30/13 08:13	05/30/13 15:29	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1103

Lab Sample ID: SWE0197-21

Date Collected: 05/29/13 11:10

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	12.3		0.200		mg/l		05/30/13 09:15	05/30/13 17:40	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1099

Lab Sample ID: SWE0197-22

Date Collected: 05/29/13 11:20

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	14.0		0.200		mg/l		05/30/13 09:15	05/30/13 17:58	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1149

Lab Sample ID: SWE0197-23

Date Collected: 05/29/13 11:50

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	13.2		0.200		mg/l		05/30/13 09:15	05/30/13 18:17	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1107

Lab Sample ID: SWE0197-24

Date Collected: 05/29/13 12:25

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.4		0.200		mg/l		05/30/13 09:15	05/30/13 18:36	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-2107

Lab Sample ID: SWE0197-25

Date Collected: 05/29/13 12:30

Matrix: Water

Date Received: 05/30/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.4		0.200		mg/l		05/30/13 09:15	05/30/13 18:54	1.00

QC Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 13E0178-BLK1

Matrix: Water

Analysis Batch: 13E0178

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13E0178_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 08:13	05/30/13 12:23	1.00

Lab Sample ID: 13E0178-BS1

Matrix: Water

Analysis Batch: 13E0178

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13E0178_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.97		mg/l		99.4	90 - 110

Lab Sample ID: 13E0178-MS1

Matrix: Water

Analysis Batch: 13E0178

Client Sample ID: RW-2100

Prep Type: Total

Prep Batch: 13E0178_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	10.9		5.00	15.9		mg/l		101	80 - 120

Lab Sample ID: 13E0178-MSD1

Matrix: Water

Analysis Batch: 13E0178

Client Sample ID: RW-2100

Prep Type: Total

Prep Batch: 13E0178_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	10.9		5.00	15.9		mg/l		100	80 - 120	0.138	12.1

Lab Sample ID: 13E0178-DUP1

Matrix: Water

Analysis Batch: 13E0178

Client Sample ID: RW-2100

Prep Type: Total

Prep Batch: 13E0178_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	10.9		10.8		mg/l		0.461	13.1

Lab Sample ID: 13E0179-BLK1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 09:15	05/30/13 20:27	1.00

Lab Sample ID: 13E0179-BS1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.66		mg/l		93.2	90 - 110

Lab Sample ID: 13E0179-MS1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: RW-2107

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	10.4		5.00	15.5		mg/l		102	80 - 120

TestAmerica Spokane

QC Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Lab Sample ID: 13E0179-MSD1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: RW-2107

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate-Nitrogen	10.4		5.00	15.4		mg/l		99.7	80 - 120	0.571	12.1

Lab Sample ID: 13E0179-DUP1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: RW-2107

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Nitrate-Nitrogen	10.4		10.4		mg/l		0.096 3	13.1

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1030

Lab Sample ID: SWE0197-01

Date Collected: 05/28/13 14:35

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 08:39	CBW	TAL SPK

Client Sample ID: RW-3030

Lab Sample ID: SWE0197-02

Date Collected: 05/28/13 14:20

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 08:58	CBW	TAL SPK

Client Sample ID: RW-1044

Lab Sample ID: SWE0197-03

Date Collected: 05/28/13 15:25

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 09:16	CBW	TAL SPK

Client Sample ID: RW-1045

Lab Sample ID: SWE0197-04

Date Collected: 05/28/13 15:47

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 09:35	CBW	TAL SPK

Client Sample ID: RW-1125

Lab Sample ID: SWE0197-05

Date Collected: 05/28/13 16:05

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 09:54	CBW	TAL SPK

Client Sample ID: RW-1046

Lab Sample ID: SWE0197-06

Date Collected: 05/28/13 16:20

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 10:13	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1047

Lab Sample ID: SWE0197-07

Date Collected: 05/28/13 16:40

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 10:31	CBW	TAL SPK

Client Sample ID: RW-1049

Lab Sample ID: SWE0197-08

Date Collected: 05/28/13 17:00

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 10:50	CBW	TAL SPK

Client Sample ID: RW-1051

Lab Sample ID: SWE0197-09

Date Collected: 05/28/13 17:25

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 11:09	CBW	TAL SPK

Client Sample ID: RW-1054

Lab Sample ID: SWE0197-10

Date Collected: 05/28/13 17:40

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 11:27	CBW	TAL SPK

Client Sample ID: RW-1085

Lab Sample ID: SWE0197-11

Date Collected: 05/29/13 08:15

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 12:42	CBW	TAL SPK

Client Sample ID: RW-3085

Lab Sample ID: SWE0197-12

Date Collected: 05/29/13 08:00

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 13:00	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1093

Lab Sample ID: SWE0197-13

Date Collected: 05/29/13 08:57

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 13:19	CBW	TAL SPK

Client Sample ID: RW-2093

Lab Sample ID: SWE0197-14

Date Collected: 05/29/13 09:00

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 13:38	CBW	TAL SPK

Client Sample ID: RW-1094

Lab Sample ID: SWE0197-15

Date Collected: 05/29/13 09:18

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 13:56	CBW	TAL SPK

Client Sample ID: RW-1095

Lab Sample ID: SWE0197-16

Date Collected: 05/29/13 09:30

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 14:15	CBW	TAL SPK

Client Sample ID: RW-1096

Lab Sample ID: SWE0197-17

Date Collected: 05/29/13 09:45

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 14:34	CBW	TAL SPK

Client Sample ID: RW-1158

Lab Sample ID: SWE0197-18

Date Collected: 05/29/13 10:08

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13E0178	05/30/13 15:48	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-1100

Lab Sample ID: SWE0197-19

Date Collected: 05/29/13 10:55

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 15:11	CBW	TAL SPK

Client Sample ID: RW-2100

Lab Sample ID: SWE0197-20

Date Collected: 05/29/13 10:57

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0178_P	05/30/13 08:13	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0178	05/30/13 15:29	CBW	TAL SPK

Client Sample ID: RW-1103

Lab Sample ID: SWE0197-21

Date Collected: 05/29/13 11:10

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 09:15	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 17:40	CBW	TAL SPK

Client Sample ID: RW-1099

Lab Sample ID: SWE0197-22

Date Collected: 05/29/13 11:20

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 09:15	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 17:58	CBW	TAL SPK

Client Sample ID: RW-1149

Lab Sample ID: SWE0197-23

Date Collected: 05/29/13 11:50

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 09:15	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 18:17	CBW	TAL SPK

Client Sample ID: RW-1107

Lab Sample ID: SWE0197-24

Date Collected: 05/29/13 12:25

Matrix: Water

Date Received: 05/30/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 09:15	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 18:36	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Client Sample ID: RW-2107

Date Collected: 05/29/13 12:30

Date Received: 05/30/13 08:00

Lab Sample ID: SWE0197-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 09:15	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 18:54	CBW	TAL SPK

Laboratory References:
TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-13
Washington	State Program	10	C569	01-06-14

Method Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0197

Method	Method Description	Protocol	Laboratory
EPA 300.0	Anions by EPA Method 300.0		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

	FAX 922-5047
	FAX 924-9290
	FAX 906-9210
	FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: DWED97

[illegible]

ITAL-1000 (0612)

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

				FAX 922-2310	FAX 922-5047
				509-924-9200	FAX 924-9290
				503-906-9200	FAX 906-9210
				907-563-9200	FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SWED097

CLIENT: ARCADIS		INVOICE TO:		TURNAROUND REQUEST					
REPORT TO: TOM MULLEN		ADDRESS: 695 N. Legacy Ridge Dr Liberty Lake, WA 99019		in Business Days *					
PHONE: 509-890-1111		FAX: 509-890-1112		Organic & Inorganic Analyses Petroleum Hydrocarbon Analyses					
PROJECT NAME: Yakima Valley Dunes		PRESERVATIVE		STD.					
PROJECT NUMBER: 737		REQUESTED ANALYSES		OTHER Specify:					
SAMPLED BY: Sebastien Dejong		SAMPLING DATE/TIME		MATRIX (W, S, O)					
CLIENT SAMPLE IDENTIFICATION		DATE		# OF CONT.					
LOCATION/COMMENTS		TA		WO ID					
1. RW-1085		5-29-13		815		W		1	
2. RW-3085		800		857		900		918	
3. RW-1093		930		945		1008		1055	
4. RW-2093		1057		1057		1057		1057	
5. RW-1094		1057		1057		1057		1057	
6. RW-1095		1057		1057		1057		1057	
7. RW-1096		1057		1057		1057		1057	
8. RW-1158		1057		1057		1057		1057	
9. RW-1100		1057		1057		1057		1057	
10. RW-2100		1057		1057		1057		1057	
RECEIVED BY: Tom Mullen		DATE: 5/29/13		FIRM: ARCADIS		RECEIVED BY: Christina Williams		DATE: 5-30-13	
PRINT NAME: Tom Mullen		TIME: 1500		FIRM: ARCADIS		PRINT NAME: Christina Williams		TIME: 0800	
RELEASED BY: Tom Mullen		DATE: 5/29/13		FIRM: ARCADIS		RELEASED BY: Christina Williams		DATE: 5-30-13	
PRINT NAME: Tom Mullen		TIME: 1500		FIRM: ARCADIS		PRINT NAME: Christina Williams		TIME: 0800	
ADDITIONAL REMARKS:		TEMP:		PAGE 2 OF 3					

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **SWED197**

CLIENT: ARCADIS		INVOICE TO: ARCADIS US		TURNAROUND REQUEST	
REPORT TO: TOM MULLEN		PRESERVATIVE		in Business Days *	
ADDRESS: 1915 N. Legway Ridge Dr Suite 200 Liberty Lake WA 99019		P.O. NUMBER:		Organic & Inorganic Analyses	
PHONE:		PROJECT NAME: YVD		Petroleum Hydrocarbon Analyses	
FAX:		PROJECT NUMBER: TBD		STD. <input type="checkbox"/> 10 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1	
SAMPLED BY: Schuster + DeJong		REQUESTED ANALYSES		Specify:	
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		OTHER <input type="checkbox"/>	
1	RW-1103	5/29/13	1110	W	1
2	RW-1099		1120	↓	
3	RW-1149		1150	↓	
4	RW-1107		1225	↓	
5	RW-2107		1230	↓	
6					
7					
8					
9					
10					
RELEASED BY: Don M. Schuster		DATE: 5/29/13		DATE: 5-30-13	
PRINT NAME: ARCADIS		TIME: 1500		TIME: 0800	
FIRM: ARCADIS		FIRM: ARCADIS		FIRM: ARCADIS	
RECEIVED BY: Chris Williams		DATE: 5/29/13		DATE: 5-30-13	
PRINT NAME: ARCADIS		TIME: 1500		TIME: 0800	
FIRM: ARCADIS		FIRM: ARCADIS		FIRM: ARCADIS	
ADDITIONAL REMARKS:		TEMP:		PAGE 2 OF 3	

EPA 9001

**TestAmerica Spokane
Sample Receipt Form**

Work Order #: <u>SWE0197</u>	Client: <u>Arcadis</u>	Project: <u>YVD</u>		
Date/Time Received: <u>5.30.13 0800</u>		By: <u>Chris Williams</u>		
Samples Delivered By: <input checked="" type="checkbox"/> Shipping Service <input type="checkbox"/> Courier <input type="checkbox"/> Client <input type="checkbox"/> Other: <u>FE Dev</u> <u>8032 7555 3789</u>				
List Air Bill Number(s) or Attach a photocopy of the Air Bill:				
Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	<input checked="" type="checkbox"/>			
Custody Seals are present and intact:	<input checked="" type="checkbox"/>			
Are CoC documents present:	<input checked="" type="checkbox"/>			
Necessary signatures:	<input checked="" type="checkbox"/>			
Thermal Preservation Type: <input type="checkbox"/> Blue Ice <input type="checkbox"/> Gel Ice <input checked="" type="checkbox"/> Real Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None <input type="checkbox"/> Other:				
Temperature: <u>4.6</u> °C Thermometer (Circle one Serial #12208348 Keyring IR Serial # 111874910 IR Gun 2) (acceptance criteria 0-6				
Temperature out of range: <input type="checkbox"/> Not enough ice <input type="checkbox"/> Ice melted <input type="checkbox"/> w/in 4hrs of collection <input type="checkbox"/> NA <input type="checkbox"/> Other:				
Log-In Phase	Yes	No	NA	Comments
Date/Time: <u>5:30 13 8:45</u> By: <u>CB</u>				
Are sample labels affixed and completed for each container	<input checked="" type="checkbox"/>			
Samples containers were received intact:	<input checked="" type="checkbox"/>			
Do sample IDs match the CoC	<input checked="" type="checkbox"/>			
Appropriate sample containers were received for tests requested	<input checked="" type="checkbox"/>			
Are sample volumes adequate for tests requested	<input checked="" type="checkbox"/>			
Appropriate preservatives were used for the tests requested	<input checked="" type="checkbox"/>			
pH of inorganic samples checked and is within method specification	<input checked="" type="checkbox"/>			
Are VOC samples free of bubbles >6mm (1/4" diameter)			<input checked="" type="checkbox"/>	
Are dissolved parameters field filtered			<input checked="" type="checkbox"/>	
Do any samples need to be filtered or preserved by the lab			<input checked="" type="checkbox"/>	
Does this project require quick turnaround analysis		<input checked="" type="checkbox"/>		
Are there any short hold time tests (see chart below)	<input checked="" type="checkbox"/>			<u>Nitrate</u>
Are any samples within 2 days of or past expiration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<u>Nitrate</u>
Was the CoC scanned	<input checked="" type="checkbox"/>			
Were there Non-conformance issues at login		<input checked="" type="checkbox"/>		
If yes, was a CAR generated #			<input checked="" type="checkbox"/>	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012



Appendix B

TestAmerica Labs
Analytical Report SWE0206

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane

11922 East 1st. Avenue

Spokane, WA 99206

Tel: (509)924-9200

TestAmerica Job ID: SWE0206

Client Project/Site: [none]

Client Project Description: Yakima Dairies

For:

ARCADIS U.S., Inc. - Liberty Lake

695 N. Legacy Ridge Drive, Suite 200

Liberty Lake, WA 99019

Attn: Tom Mullen



Authorized for release by:

6/4/2013 1:55:23 PM

Randee Decker, Project Manager

Randee.Decker@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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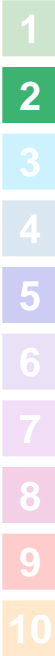


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Sample Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWE0206-01	RW-1108	Water	05/29/13 14:00	05/30/13 15:40
SWE0206-02	RW-1101	Water	05/29/13 14:20	05/30/13 15:40
SWE0206-03	RW-1172	Water	05/29/13 14:35	05/30/13 15:40
SWE0206-04	RW-3108	Water	05/29/13 13:50	05/30/13 15:40
SWE0206-05	RW-1078	Water	05/29/13 16:33	05/30/13 15:40
SWE0206-06	RW-1152	Water	05/29/13 16:00	05/30/13 15:40
SWE0206-07	RW-2152	Water	05/29/13 16:05	05/30/13 15:40
SWE0206-08	RW-1092	Water	05/29/13 15:40	05/30/13 15:40
SWE0206-09	RW-1084	Water	05/29/13 15:20	05/30/13 15:40
SWE0206-10	RW-1086	Water	05/30/13 08:55	05/30/13 15:40
SWE0206-11	RW-3086	Water	05/30/13 08:50	05/30/13 15:40
SWE0206-12	RW-1102	Water	05/30/13 09:40	05/30/13 15:40
SWE0206-13	RW-2102	Water	05/30/13 09:45	05/30/13 15:40
SWE0206-14	RW-1062	Water	05/30/13 10:05	05/30/13 15:40
SWE0206-15	RW-1087	Water	05/30/13 10:15	05/30/13 15:40
SWE0206-16	RW-1090A	Water	05/30/13 10:50	05/30/13 15:40
SWE0206-17	RW-1090B	Water	05/30/13 10:55	05/30/13 15:40
SWE0206-18	RW-1012	Water	05/30/13 11:40	05/30/13 15:40
SWE0206-19	RW-1011	Water	05/30/13 11:55	05/30/13 15:40

TestAmerica Spokane

Definitions/Glossary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1108

Lab Sample ID: SWE0206-01

Date Collected: 05/29/13 14:00

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	20.3		2.00		mg/l		05/30/13 16:45	05/31/13 08:14	10.0

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1101

Lab Sample ID: SWE0206-02

Date Collected: 05/29/13 14:20

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	18.2		0.200		mg/l		05/30/13 16:45	05/30/13 21:04	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1172

Lab Sample ID: SWE0206-03

Date Collected: 05/29/13 14:35

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	9.72		0.200		mg/l		05/30/13 16:45	05/30/13 21:23	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-3108

Lab Sample ID: SWE0206-04

Date Collected: 05/29/13 13:50

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 16:45	05/30/13 21:42	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1078

Lab Sample ID: SWE0206-05

Date Collected: 05/29/13 16:33

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	12.4		0.200		mg/l		05/30/13 16:45	05/30/13 22:00	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1152

Lab Sample ID: SWE0206-06

Date Collected: 05/29/13 16:00

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	15.8		0.200		mg/l		05/30/13 16:45	05/30/13 22:19	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-2152

Lab Sample ID: SWE0206-07

Date Collected: 05/29/13 16:05

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	15.6		0.200		mg/l		05/30/13 16:45	05/30/13 22:38	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1092

Lab Sample ID: SWE0206-08

Date Collected: 05/29/13 15:40

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	8.30		0.200		mg/l		05/30/13 16:45	05/30/13 22:56	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1084

Lab Sample ID: SWE0206-09

Date Collected: 05/29/13 15:20

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	7.91		0.200		mg/l		05/30/13 16:45	05/30/13 23:15	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1086

Lab Sample ID: SWE0206-10

Date Collected: 05/30/13 08:55

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	16.8		0.200		mg/l		05/30/13 16:45	05/30/13 23:33	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-3086

Lab Sample ID: SWE0206-11

Date Collected: 05/30/13 08:50

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 16:45	05/30/13 23:52	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1102

Lab Sample ID: SWE0206-12

Date Collected: 05/30/13 09:40

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	18.2		0.200		mg/l		05/30/13 16:45	05/31/13 00:11	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-2102

Lab Sample ID: SWE0206-13

Date Collected: 05/30/13 09:45

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	18.4		0.200		mg/l		05/30/13 16:45	05/31/13 00:29	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1062

Lab Sample ID: SWE0206-14

Date Collected: 05/30/13 10:05

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.67		0.200		mg/l		05/30/13 16:45	05/31/13 00:48	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1087

Lab Sample ID: SWE0206-15

Date Collected: 05/30/13 10:15

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.82		0.200		mg/l		05/30/13 16:45	05/31/13 01:06	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1090A

Lab Sample ID: SWE0206-16

Date Collected: 05/30/13 10:50

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	23.8		2.00		mg/l		05/31/13 07:20	05/31/13 12:16	10.0

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1090B

Lab Sample ID: SWE0206-17

Date Collected: 05/30/13 10:55

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	23.0		2.00		mg/l		05/31/13 07:20	05/31/13 12:35	10.0

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1012

Lab Sample ID: SWE0206-18

Date Collected: 05/30/13 11:40

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	5.63		0.200		mg/l		05/31/13 07:20	05/31/13 09:10	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1011

Lab Sample ID: SWE0206-19

Date Collected: 05/30/13 11:55

Matrix: Water

Date Received: 05/30/13 15:40

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	30.6		4.00		mg/l		05/31/13 07:20	05/31/13 12:53	20.0

QC Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 13E0179-BLK1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/30/13 09:15	05/30/13 20:27	1.00

Lab Sample ID: 13E0179-BS1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.66		mg/l		93.2	90 - 110

Lab Sample ID: 13E0179-MS1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	10.4		5.00	15.5		mg/l		102	80 - 120

Lab Sample ID: 13E0179-MSD1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	10.4		5.00	15.4		mg/l		99.7	80 - 120	0.571	12.1

Lab Sample ID: 13E0179-DUP1

Matrix: Water

Analysis Batch: 13E0179

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 13E0179_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	10.4		10.4		mg/l		0.096	13.1

3

Lab Sample ID: 13E0187-BLK1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/31/13 07:20	05/31/13 11:58	1.00

Lab Sample ID: 13E0187-BS1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.69		mg/l		93.8	90 - 110

TestAmerica Spokane

QC Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Method: EPA 300.0 - Anions by EPA Method 300.0 (Continued)

Lab Sample ID: 13E0187-MS1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	ND		5.00	4.74		mg/l		94.8	80 - 120

Lab Sample ID: 13E0187-MSD1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	ND		5.00	4.70		mg/l		93.9	80 - 120	0.932	12.1

Lab Sample ID: 13E0187-DUP1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: RW-1011

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	30.6		30.2		mg/l		1.32	13.1

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1108

Lab Sample ID: SWE0206-01

Date Collected: 05/29/13 14:00

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13E0179	05/31/13 08:14	CBW	TAL SPK

Client Sample ID: RW-1101

Lab Sample ID: SWE0206-02

Date Collected: 05/29/13 14:20

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 21:04	CBW	TAL SPK

Client Sample ID: RW-1172

Lab Sample ID: SWE0206-03

Date Collected: 05/29/13 14:35

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 21:23	CBW	TAL SPK

Client Sample ID: RW-3108

Lab Sample ID: SWE0206-04

Date Collected: 05/29/13 13:50

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 21:42	CBW	TAL SPK

Client Sample ID: RW-1078

Lab Sample ID: SWE0206-05

Date Collected: 05/29/13 16:33

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 22:00	CBW	TAL SPK

Client Sample ID: RW-1152

Lab Sample ID: SWE0206-06

Date Collected: 05/29/13 16:00

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 22:19	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-2152

Lab Sample ID: SWE0206-07

Date Collected: 05/29/13 16:05

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 22:38	CBW	TAL SPK

Client Sample ID: RW-1092

Lab Sample ID: SWE0206-08

Date Collected: 05/29/13 15:40

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 22:56	CBW	TAL SPK

Client Sample ID: RW-1084

Lab Sample ID: SWE0206-09

Date Collected: 05/29/13 15:20

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 23:15	CBW	TAL SPK

Client Sample ID: RW-1086

Lab Sample ID: SWE0206-10

Date Collected: 05/30/13 08:55

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 23:33	CBW	TAL SPK

Client Sample ID: RW-3086

Lab Sample ID: SWE0206-11

Date Collected: 05/30/13 08:50

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/30/13 23:52	CBW	TAL SPK

Client Sample ID: RW-1102

Lab Sample ID: SWE0206-12

Date Collected: 05/30/13 09:40

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/31/13 00:11	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-2102

Lab Sample ID: SWE0206-13

Date Collected: 05/30/13 09:45

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/31/13 00:29	CBW	TAL SPK

Client Sample ID: RW-1062

Lab Sample ID: SWE0206-14

Date Collected: 05/30/13 10:05

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/31/13 00:48	CBW	TAL SPK

Client Sample ID: RW-1087

Lab Sample ID: SWE0206-15

Date Collected: 05/30/13 10:15

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0179_P	05/30/13 16:45	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0179	05/31/13 01:06	CBW	TAL SPK

Client Sample ID: RW-1090A

Lab Sample ID: SWE0206-16

Date Collected: 05/30/13 10:50

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 07:20	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13E0187	05/31/13 12:16	CBW	TAL SPK

Client Sample ID: RW-1090B

Lab Sample ID: SWE0206-17

Date Collected: 05/30/13 10:55

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 07:20	CBW	TAL SPK
Total	Analysis	EPA 300.0		10.0	13E0187	05/31/13 12:35	CBW	TAL SPK

Client Sample ID: RW-1012

Lab Sample ID: SWE0206-18

Date Collected: 05/30/13 11:40

Matrix: Water

Date Received: 05/30/13 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 07:20	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 09:10	CBW	TAL SPK

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Client Sample ID: RW-1011

Date Collected: 05/30/13 11:55

Date Received: 05/30/13 15:40

Lab Sample ID: SWE0206-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 07:20	CBW	TAL SPK
Total	Analysis	EPA 300.0		20.0	13E0187	05/31/13 12:53	CBW	TAL SPK

Laboratory References:
TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-13
Washington	State Program	10	C569	01-06-14

Method Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0206

Method	Method Description	Protocol	Laboratory
EPA 300.0	Anions by EPA Method 300.0		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

[illegible]

TAL-1000 (0612)

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
 11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **SNE0206**

CLIENT: ARCADIS		INVOICE TO: ARCADIS - US		TURNAROUND REQUEST	
REPORT TO: TOM MULLEN		P.O. NUMBER:		<input checked="" type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Organic & Inorganic Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analyses STD.	
ADDRESS: 6095 N. Legacy Ridge Drive Suite 200		PRESERVATIVE		in Business Days * OTHER Specify:	
PHONE:		REQUESTED ANALYSES		* Turnaround Requests less than standard may incur Rush Charges.	
FAX:					
PROJECT NAME: YVD					
PROJECT NUMBER: TBD					
SAMPLED BY: Schaefer DeJong					
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME				
1. RW-20810	5/30/13 850	W 1			
2. RW-1102	940				
3. RW-2102	945				
4. RW-1062	1005				
5. RW-1087	1015				
6. RW-1090A	1050				
7. RW-1090B	1055				
8. RW-1012	1140				
9. RW-1011	1155				
10					
RELEASED BY: Thomas F. Mullen		DATE: 5/30/13		DATE: 5/30/13	
PRINT NAME: Thomas F. Mullen		FIRM: ARCADIS		FIRM: TestAmerica	
RECEIVED BY:		DATE:		DATE:	
PRINT NAME:		FIRM:		FIRM:	
ADDITIONAL REMARKS:		TEMP: 1.9		PAGE 2 OF 2	

**TestAmerica Spokane
Sample Receipt Form**

Work Order # SNE0206	Client: Arcadis	Project: Yakima Dairies		
Date/Time Received: 5/20/13 15:40		By: CS		
Samples Delivered By: <input type="checkbox"/> Shipping Service <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> Other:				
List Air Bill Number(s) or Attach a photocopy of the Air Bill:				
Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:			X	
Are CoC documents present:	X			
Necessary signatures:	X			
Thermal Preservation Type: <input type="checkbox"/> Blue Ice <input type="checkbox"/> Gel Ice <input checked="" type="checkbox"/> Real Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None <input type="checkbox"/> Other:				
Temperature: 1.9 °C Thermometer (Circle one) Serial # 122208348 Keyring IR Serial # 111874910 IR Gun 2 (acceptance criteria 0-6)				
Temperature out of range: <input type="checkbox"/> Not enough ice <input type="checkbox"/> Ice melted <input type="checkbox"/> w/in 4hrs of collection <input type="checkbox"/> NA <input type="checkbox"/> Other:				
Log-in Phase	Yes	No	NA	Comments
Date/Time: 5/20/13 16:30 By: CS				
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	X			
Do sample IDs match the CoC	X			
Appropriate sample containers were received for tests requested	X			
Are sample volumes adequate for tests requested	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			
Are VOC samples free of bubbles >6mm (1/4" diameter)			X	
Are dissolved parameters field filtered			X	
Do any samples need to be filtered or preserved by the lab			X	
Does this project require quick turnaround analysis		X		
Are there any short hold time tests (see chart below)	X			Nitrate
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	X			
Were there Non-conformance issues at login		X		
If yes, was a CAR generated #			7	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012



Appendix C

TestAmerica Labs
Analytical Report SWE0207

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane

11922 East 1st. Avenue

Spokane, WA 99206

Tel: (509)924-9200

TestAmerica Job ID: SWE0207

Client Project/Site: [none]

Client Project Description: Yakima Dairies

For:

ARCADIS U.S., Inc. - Liberty Lake

695 N. Legacy Ridge Drive, Suite 200

Liberty Lake, WA 99019

Attn: Tom Mullen



Authorized for release by:

6/4/2013 2:04:46 PM

Randee Decker, Project Manager

Randee.Decker@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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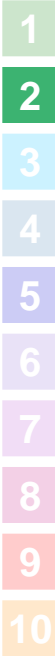


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Client Sample Results	5
QC Sample Results	10
Chronicle	11
Certification Summary	12
Method Summary	13
Chain of Custody	14

Sample Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SWE0207-01	RW-3097	Water	05/30/13 13:50	05/31/13 08:00
SWE0207-02	RW-1091	Water	05/30/13 15:38	05/31/13 08:00
SWE0207-03	RW-1097	Water	05/30/13 13:55	05/31/13 08:00
SWE0207-04	RW-1110	Water	05/30/13 14:30	05/31/13 08:00
SWE0207-05	RW-1171	Water	05/30/13 15:00	05/31/13 08:00

Definitions/Glossary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-3097

Lab Sample ID: SWE0207-01

Date Collected: 05/30/13 13:50

Matrix: Water

Date Received: 05/31/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/31/13 09:30	05/31/13 10:06	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-1091

Lab Sample ID: SWE0207-02

Date Collected: 05/30/13 15:38

Matrix: Water

Date Received: 05/31/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	3.12		0.200		mg/l		05/31/13 09:30	05/31/13 10:24	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-1097

Lab Sample ID: SWE0207-03

Date Collected: 05/30/13 13:55

Matrix: Water

Date Received: 05/31/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	10.1		0.200		mg/l		05/31/13 09:30	05/31/13 10:43	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-1110

Lab Sample ID: SWE0207-04

Date Collected: 05/30/13 14:30

Matrix: Water

Date Received: 05/31/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	7.62		0.200		mg/l		05/31/13 09:30	05/31/13 11:02	1.00

Client Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-1171

Lab Sample ID: SWE0207-05

Date Collected: 05/30/13 15:00

Matrix: Water

Date Received: 05/31/13 08:00

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	12.7		0.200		mg/l		05/31/13 09:30	05/31/13 11:20	1.00

QC Sample Results

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 13E0187-BLK1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/l		05/31/13 07:20	05/31/13 11:58	1.00

Lab Sample ID: 13E0187-BS1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	4.69		mg/l		93.8	90 - 110

Lab Sample ID: 13E0187-MS1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: RW-3097

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	ND		5.00	4.74		mg/l		94.8	80 - 120

Lab Sample ID: 13E0187-MSD1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: RW-3097

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	ND		5.00	4.70		mg/l		93.9	80 - 120	0.932	12.1

Lab Sample ID: 13E0187-DUP1

Matrix: Water

Analysis Batch: 13E0187

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 13E0187_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	30.6		30.2		mg/l		1.32	13.1

TestAmerica Spokane

Lab Chronicle

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Client Sample ID: RW-3097

Lab Sample ID: SWE0207-01

Date Collected: 05/30/13 13:50

Matrix: Water

Date Received: 05/31/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 10:06	CBW	TAL SPK

Client Sample ID: RW-1091

Lab Sample ID: SWE0207-02

Date Collected: 05/30/13 15:38

Matrix: Water

Date Received: 05/31/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 10:24	CBW	TAL SPK

Client Sample ID: RW-1097

Lab Sample ID: SWE0207-03

Date Collected: 05/30/13 13:55

Matrix: Water

Date Received: 05/31/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 10:43	CBW	TAL SPK

Client Sample ID: RW-1110

Lab Sample ID: SWE0207-04

Date Collected: 05/30/13 14:30

Matrix: Water

Date Received: 05/31/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 11:02	CBW	TAL SPK

Client Sample ID: RW-1171

Lab Sample ID: SWE0207-05

Date Collected: 05/30/13 15:00

Matrix: Water

Date Received: 05/31/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	13E0187_P	05/31/13 09:30	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	13E0187	05/31/13 11:20	CBW	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica Spokane

Certification Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-13
Washington	State Program	10	C569	01-06-14

Method Summary

Client: ARCADIS U.S., Inc. - Liberty Lake
Project/Site: [none]

TestAmerica Job ID: SWE0207

Method	Method Description	Protocol	Laboratory
EPA 300.0	Anions by EPA Method 300.0		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

5755 8th Street East, Tacoma, WA 98424-1317
11922 E. First Ave. Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SWE0207

[illegible]

**TestAmerica Spokane
Sample Receipt Form**

Work Order #: <u>SWE0207</u>	Client: <u>Arcadis</u>	Project: <u>YVD</u>		
Date/Time Received: <u>0800 5-31-13</u> By: <u>CLW</u>				
Samples Delivered By: <input type="checkbox"/> Shipping Service <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> Other: _____				
List Air Bill Number(s) or Attach a photocopy of the Air Bill:				
Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	<u>8</u>			
Custody Seals are present and intact:			<u>8</u>	
Are CoC documents present:	<u>8</u>			
Necessary signatures:	<u>✓</u>			
Thermal Preservation Type: <input type="checkbox"/> Blue Ice <input type="checkbox"/> Gel Ice <input checked="" type="checkbox"/> Real Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None <input type="checkbox"/> Other: _____				
Temperature: <u>3.0</u> °C Thermometer (Circle one Serial # <u>122208348</u> Keyring IR Serial # 111874910 IR Gun 2) (acceptance criteria 0-6				
Temperature out of range: <input type="checkbox"/> Not enough ice <input type="checkbox"/> Ice melted <input type="checkbox"/> w/in 4hrs of collection <input type="checkbox"/> NA <input type="checkbox"/> Other: _____				
Log-in Phase	Yes	No	NA	Comments
Date/Time: <u>8-31-13 835</u> By: <u>AS</u>				
Are sample labels affixed and completed for each container	<u>✓</u>			
Samples containers were received intact:	<u>✓</u>			
Do sample IDs match the CoC	<u>✓</u>			
Appropriate sample containers were received for tests requested	<u>✓</u>			
Are sample volumes adequate for tests requested	<u>✓</u>			
Appropriate preservatives were used for the tests requested	<u>✓</u>			
pH of inorganic samples checked and is within method specification	<u>✓</u>			
Are VOC samples free of bubbles >6mm (1/4" diameter)	<u>✓</u>			
Are dissolved parameters field filtered			<u>✓</u>	
Do any samples need to be filtered or preserved by the lab			<u>✓</u>	
Does this project require quick turnaround analysis		<u>X</u>		
Are there any short hold time tests (see chart below)	<u>X</u>			<u>Nitrate</u>
Are any samples within 2 days of or past expiration		<u>✓</u>		
Was the CoC scanned	<u>✓</u>			
Were there Non-conformance issues at login		<u>✓</u>		
If yes, was a CAR generated #			<u>✓</u>	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

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